

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of: :
Michael GILGE : Examiner: William M. Treat
For: DATA GATHERING/DATA PROCESSING: :
DEVICE FOR VIDEO/AUDIO SIGNALS :
Filed: June 8, 2007 : Art Unit: 2181
Serial No.: 10/587,667 :

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MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office via the Office electronic filing system on November 12, 2010.

Signature: Marcello Petrone/
Marcello Petrone

APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37

SIR:

In the above-identified patent application ("the present application"), Appellants e-filed a Notice Of Appeal on August 12, 2010 as to the Final Office Action issued by the U.S. Patent and Trademark Office on February 12, 2010, so that the two-month appeal brief due date is October 12, 2010, which is extended by one (1) month to November 12, 2010 by the accompanying Transmittal and Petition to Extend.

In the Final Office Action, claims 14 to 35 were finally rejected.

A Response After A Final Office Action was mailed on April 29, 2010 (and filed on May 4, 2010), and an Advisory Action was mailed on May 14, 2010.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response A Final Office Action of April 29, 2010 did not include any amendments.

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Attorney Docket No. 10191/4866
Appeal Brief

*The Appeal Brief is believed to comply with all the requirements of Rule 41.37. It is noted that the “concise explanation” language of the Rule is like the “concise explanation” requirement of former Rule 37 CFR 1.192, and that the length of the concise explanation provided herein should therefore be acceptable, since the format was acceptable under 37 CFR 1.192 and since it specifically defines the subject matter of the relevant claims involved in the appeal. AARON C. DEDITCH (reg. no. 33,865) has filed many appeal briefs, the concise explanation for which has ultimately always been accepted by the Patent Office. **The Office is encouraged to contact the undersigned if there are any questions as to the description of the claimed subject matter.***

It is noted that the Patent Office Rules do not require the Applicants to include references cited by and relied upon by the Examiner in the Evidence Appendix (although it is required by the Office for the Examiner). In the present Appeal, the Applicants have not submitted any evidence on which they intend to rely, so that the Evidence Appendix lists no evidence.

It is respectfully submitted that this Appeal brief complies with 37 C.F.R. 41.37. Although no longer required by the rules, this Brief is submitted in triplicate as a courtesy to the Appeals Board.

It is respectfully submitted that the final rejections of pending claims 14 to 35 should be reversed for the reasons explained below.

1. REAL PARTY IN INTEREST

The real party in interest in the present appeal is Robert Bosch GmbH (“Robert Bosch”) of Stuttgart in the Federal Republic of Germany. Robert Bosch is the assignee of the entire right, title and interest in the present application.

2. RELATED APPEALS AND INTERFERENCES

There are no interferences or other appeals related to the present application, which “will directly affect or be directly affected by or have a bearing on the Board’s decision in the pending appeal”.

3. STATUS OF CLAIMS

A. Claims 14 to 28, 31, 32, 34 and 35 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of German Patent No. DE 10153484 (the “Gilge” reference) in view of Local Area Networks Architectures and Implementations (the “Martin” reference).

B. Claims 29, 30 and 33 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of the “Gilge” reference in view of the “Martin” reference and U.S. Patent Application Pub. No. 2004/0264493 (the “Han” reference).

Appellants therefore appeal from the final rejections of pending claims 15 to 34. A copy of all of the pending and appealed claims 15 to 34 is attached hereto in the Appendix.

4. STATUS OF AMENDMENTS

In response to the Final Office Action mailed on February 12, 2010, an Amendment After A Final Office Action was mailed on April 29, 2010 (and filed on May 4, 2010) in response to the Final Office Action, and an Advisory Action was mailed on May 14, 2010.

It is understood for purposes of the appeal that any Amendments to date have already been entered by the Examiner, and that the Response After Final did not include any amendments.

5. SUMMARY OF CLAIMED SUBJECT MATTER

The concise explanation of the summary of the claimed subject matter is as follows, as described in the context of the present application.

As to claim 14, it is to a data gathering/data processing device for video/audio signals, including a plurality of signal processors; and an evaluation device configured to analyze output of at least a subset of the signal processors.

A data gathering/data processing device 10 for video/audio signals is shown in Figure 1, and it includes a housing 12 having a plurality of signal processors 14 (DSP – digital signal processors). (See Specification, pg. 4, lines 19 to 23; and Fig. 1). Figure 1 also shows an evaluating device 22c that is interconnected with the processing device, so that modified data made available by the respective processing devices are comparable and evaluable, so as to make available a selected data record that is optimized for an application.. (See Specification, pg. 5, lines 26 to 31; and Fig. 1).

As to claim 14, it also includes the feature in which the evaluation device and the at least a subset of the signal processors each forming a direct link to one of a central hub, a switch and a port, of a network having a star-shaped topology.

According to the presently claimed subject matter, the plurality of signal processors 14 (or a subset thereof) is interconnected with a network 28 having a star-shaped topology, and they are thereby linked to one another. Network 28 has a hub or a switch 30, connecting lines leading in from each of the corresponding signal processors (for example, from signal processors 22a, 22b, 22c, 24, 26a, 26b) to the hub/switch 30. A network 28 having a star-shaped topology is integrated into device 10, and it links signal processors 14 of data gathering device and data processing device 10. Network 28 forms a backbone (backplane) of device 10. Network 28 is built into the device. Device 10 has at least one connection 34, via which device 10 is connectable to a digital network (e.g., the Internet or an intranet). Connection 34 is interconnected with network 28 and particularly to the hub/switch 30 or an appropriate port. It may be provided, in this context, that the hub/switch 30 or the port is in housing 12. (See Specification, pg. 5, line 33 to pg. 6, line 15; and Fig. 1).

As to claim 34, it is to a to a device, including a housing having a plurality of input connections and an output connection, each of the input connections adapted to receive an audio/visual signal; a plurality of signal processors coupled to the input connections, at least

two of the plurality of signal processors being coupled to a shared input connection, a first one of the at least two of the plurality of signal processors configured to perform a compression of a signal from the shared input connection, and a second one of the at least two of the plurality of signal processors configured to perform an analysis of the signal from the shared input connection.

Figure 1 shows a data gathering/data processing device 10 for video/audio signals that includes a housing 12 having signal processors 14 (DSP – digital signal processors). Device 10 has a plurality of connections 16 for injecting (digital) video/audio signals. The signals thus injected are then processable by signal processors 14. (See Specification, pg. 4, lines 19 to 26; and Fig. 1). At least one signal processor is assigned to each connection 16. In the exemplary embodiment, two signal processors 22a and 22b are assigned to connection 18a. One signal processor 24 is assigned to connection 18b. Two signal processors 26a, 26b are assigned to connection 18c. Signal processors 22a, 22b or 26a, 26b are assigned to a respective connection 18a or 18c, so that injected video/audio signals may be gathered and processed in different ways. Signal processor 22a can compress the injected data, signal processor 22b can analyze the injected data, and signal processor 22c can do a data comparison. (See Specification, pg. 5, lines 9 to 19; and Fig. 1).

As to claim 34, it also includes the feature of an evaluation device to analyze output of at least a subset of the signal processors; and one of a central hub, a switch and a port, directly connected to each of the signal processors and to the evaluation device to form a network having a star-shaped topology, each of the connections to the one of a central hub, a switch and a port being assigned a specific communication bandwidth.

According to the presently claimed subject matter, the signal processors 14 (or a subset thereof) are interconnected with a network 28 having a star-shaped topology, and are thereby linked to one another. Network 28 has a hub/switch 30, connecting lines leading in from each of the corresponding signal processors (for example, signal processors 22a, 22b, 22c, 24, 26a, 26b) to the hub or switch 30. A network 28 having a star-shaped topology is integrated into device 10. This network 28 links signal processors 14 of data gathering device and data processing device 10. Network 28 forms a backbone (backplane) of device 10. Network 28 is built into the device. Device 10 has at least one connection 34, via which device 10 is connectable to a digital network, and which is interconnected with network 28 and particularly to the hub or switch 30 or an appropriate port. The hub or switch 30 or the

port may be in housing 12. (See Specification, pg. 5, line 33 to pg. 6, line 15; and Fig. 1). A certain bandwidth is assigned to each subassembly, for instance, to signal processors 22a, 22b, which is then also able to be used appropriately. (See Specification, pg. 7, lines 2 to 4; and Fig. 1).

As to claim 34, it also includes the feature in which the one of a central hub, a switch and a port is configured to engage in full duplex communication with each of the signal processors, communicate the output of the at least a subset of the signal processors to the evaluation device, communicate an output of the evaluation device to a second device coupled to the output connection, and communicate an input from the second device, received via the output connection, to the evaluation device.

A network 28 is constructed and its data traffic occurs according to the Ethernet standard (for example, IEEE 802.3). In one Ethernet network 28, four data lines 32 are required from respective signal processors 14 to hub or switch 30 (Tx+, Tx-, Rx+, Rx-). In the Ethernet standard having a star-shaped network, all signal processors 14 can communicate with one another in full duplex mode. (See Specification, pg. 6, lines 18 to 28; and Fig. 1).

As to claim 35, it is to a device, including a housing having a plurality of input connections and a plurality of output connections, each of the input connections adapted to receive an audio/visual signal; a plurality of signal processors coupled to the input connections, at least two of the plurality of signal processors being coupled to a shared input connection, a first one of the at least two of the plurality of signal processors configured to perform a compression of a signal from the shared input connection, and a second one of the at least two of the plurality of signal processors configured to perform an analysis of the signal from the shared input connection.

Figure 1 shows a data gathering/data processing device 10 for video/audio signals, which is shown schematically in Figure 1, having signal processors 14 (DSP – digital signal processors). Device 10 has a plurality of connections 16 for injecting (digital) video/audio signals. The signals thus injected are then able to be processed by signal processors 14. (See Specification, pg. 4, lines 19 to 26; and Fig. 1). At least one signal processor is assigned to each connection 16. In the exemplary embodiment shown, two signal processors 22a and 22b are assigned to connection 18a. One signal processor 24 is assigned to connection 18b. Two signal processors 26a, 26b are assigned to connection 18c. Because of a plurality of signal

processors 22a, 22b or 26a, 26b, which are assigned to a respective connection 18a or 18c, injected video/audio signals may be gathered and processed in different ways. For instance, signal processor 22a may compress the injected data, signal processor 22b may analyze the injected data, and signal processor 22c may carry out a data comparison. (See Specification, pg. 5, lines 9 to 19; and Fig. 1).

As to claim 35, it also includes the feature of an evaluation device configured to analyze output of at least a subset of the signal processors; wherein, each of the plurality of signal processors and the evaluation device is directly coupled to one of a central hub, a switch and a port, via a respective one of the plurality of output connections, to form a network having a star-shaped topology, each of the connections to the one of a central hub, a switch and a port being assigned a specific communication bandwidth.

According to the presently claimed subject matter, the signal processors 14 (or a subset thereof) are interconnected with a network 28 having a star-shaped topology, and are thereby linked to one another. Network 28 has a hub or a switch 30, connecting lines leading in from each of the corresponding signal processors (in the example shown, from signal processors 22a, 22b, 22c, 24, 26a, 26b). A network 28 having a star-shaped topology is integrated into device 10, and it links signal processors 14 of data gathering device and data processing device 10. Network 28 forms a backbone (backplane) of device 10, which has at least one connection 34, via which device 10 is able to be connected to a digital network. Connection 34 is interconnected with network 28 and particularly to the hub or switch 30 or an appropriate port. The hub or switch 30 or the port may be in housing 12. (See Specification, pg. 5, line 33 to pg. 6, line 15; and Fig. 1). A certain bandwidth is assigned to each subassembly, for instance, to signal processors 22a, 22b, which is then also able to be used appropriately. (See Specification, pg. 7, lines 2 to 4; and Fig. 1).

As to claim 35, it also includes the feature in which the one of a central hub, a switch and a port is configured to engage in full duplex communication with each of the signal processors, communicate the output of the at least a subset of the signal processors to the evaluation device, communicate an output of the evaluation device to a second device coupled to an output connection of the one of a central hub, a switch and a port, and communicate an input from the second device, received via the output connection of the one of a central hub, a switch and a port, to the evaluation device.

A network 28 is constructed according to the Ethernet standard, and the data traffic on network 28 takes place according to the Ethernet standard. The corresponding Ethernet components operate according to the Ethernet standard (e.g., IEEE 802.3). In one Ethernet network 28, four data lines 32 are required from respective signal processors 14 to hub or switch 30 (Tx+, Tx-, Rx+, Rx-). In the Ethernet standard having a star-shaped network, all signal processors 14 are able to communicate with one another in full duplex mode. (See Specification, pg. 6, lines 18 to 28; and Fig. 1).

In summary, the presently claimed subject matter is to a data gathering/data processing device for video/audio signals, including a plurality of signal processors; and an evaluation device configured to analyze output of at least a subset of the signal processors, the evaluation device and the at least a subset of the signal processors each forming a direct link to one of a central hub, a switch and a port, of a network having a star-shaped topology. (See claim 14)

In summary, the presently claimed subject matter is to a device, including a housing having a plurality of input connections and an output connection, each of the input connections adapted to receive an audio/visual signal; a plurality of signal processors coupled to the input connections, at least two of the plurality of signal processors being coupled to a shared input connection, a first one of the at least two of the plurality of signal processors configured to perform a compression of a signal from the shared input connection, and a second one of the at least two of the plurality of signal processors configured to perform an analysis of the signal from the shared input connection; an evaluation device to analyze output of at least a subset of the signal processors; and one of a central hub, a switch and a port, directly connected to each of the signal processors and to the evaluation device to form a network having a star-shaped topology, each of the connections to the one of a central hub, a switch and a port being assigned a specific communication bandwidth; wherein the one of a central hub, a switch and a port is configured to engage in full duplex communication with each of the signal processors, communicate the output of the at least a subset of the signal processors to the evaluation device, communicate an output of the evaluation device to a second device coupled to the output connection, and communicate an input from the second device, received via the output connection, to the evaluation device. (See claim 34)

In summary, the presently claimed subject matter is to a device, including a housing having a plurality of input connections and a plurality of output connections, each of the input connections adapted to receive an audio/visual signal; a plurality of signal processors coupled to the input connections, at least two of the plurality of signal processors being coupled to a shared input connection, a first one of the at least two of the plurality of signal processors configured to perform a compression of a signal from the shared input connection, and a second one of the at least two of the plurality of signal processors configured to perform an analysis of the signal from the shared input connection; and an evaluation device configured to analyze output of at least a subset of the signal processors; wherein, each of the plurality of signal processors and the evaluation device is directly coupled to one of a central hub, a switch and a port, via a respective one of the plurality of output connections, to form a network having a star-shaped topology, each of the connections to the one of a central hub, a switch and a port being assigned a specific communication bandwidth, and wherein the one of a central hub, a switch and a port is configured to engage in full duplex communication with each of the signal processors, communicate the output of the at least a subset of the signal processors to the evaluation device, communicate an output of the evaluation device to a second device coupled to an output connection of the one of a central hub, a switch and a port, and communicate an input from the second device, received via the output connection of the one of a central hub, a switch and a port, to the evaluation device. (See claim 35)

Finally, the appealed claims include no means-plus-function language and no step-plus-function claims, so that 41.37(v) is satisfied as to its specific requirements for such claims, since none are present here. Also, the present application does not contain any step-plus-function claims because the method claims in the present application are not “step plus function” claims because they do not recite “a step for,” as required by the Federal Circuit and as stated in Section 2181 of the MPEP.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 14 to 28, 31, 32, 34 and 35 are unpatentable under 35 U.S.C. § 103(a) over the combination of German Patent No. DE 10153484 (the “Gilge” reference) in view of Local Area Networks Architectures and Implementations (the “Martin” reference).

B. Whether claims 29, 30 and 33 are unpatentable under 35 U.S.C. § 103(a) over the combination of the “Gilge” reference in view of the “Martin” reference and U.S. Patent Application Pub. No. 2004/0264493 (the “Han” reference).

7. ARGUMENTS

A. REJECTIONS OF CLAIMS 14 TO 28, 31, 32, 34 AND 35 UNDER 35 U.S.C § 103(a)

Claims 14 to 28, 31, 32, 34 and 35 were rejected under 35 U.S.C. § 103(a) as obvious over German Patent No. DE 10153484 (the “Gilge” reference) in view of Local Area Networks Architectures and Implementations (the “Martin” reference).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co.*,

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Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

The Office conclusorily asserts that the traversal of the Official Notice in the Office Action of September 29, 2009 was inadequate because it did not state why the noticed facts were not part of the common knowledge or well-known in the art. However, M.P.E.P. § 2144.03(A) states that Official Notice “should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are *capable of instant and unquestionable demonstration* as being well-known.” (emphasis added). Further, “[i]t is never appropriate to rely solely on ‘common knowledge’ in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based.” *Id.* Thus, whenever Official Notice is taken, it is believed and respectfully submitted that the initial burden is on the Office to provide documentary evidence to support its assertions.

It should be noted that MPEP 2144.03 describes instances where documentary evidence will not be required necessarily (“desirable to make something faster, cheaper, better, or stronger” or “in a first Office action to take official notice of facts by asserting that certain limitations in a dependent claim are old and well known expedients in the art without the support of documentary evidence provided the facts so noticed are of notorious character and serve only to ‘fill in the gaps’”). Conversely, “assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art.” Furthermore, other instances where the Examiner is required to provide documentary evidence include references to a chemical theory or the state of the art. (MPEP 2144.03, emphasis added).

Applicants respectfully submit that in the present application, the Official Notice of the Office Action of September 29, 2009 took official notice of facts by asserting that certain limitations in an independent claim are old and well known expedients in the art without the support of documentary evidence.

Still further, the Official Notice of the Office Action of September 29, 2009 also made assertions of technical facts (existence of backbone Ethernet switches with certain capabilities) in areas of esoteric technology (computer networks) and regarding specific knowledge of the prior art or the state of the art (For most Ethernet applications ...) , which

assertions must always be supported by citation to some reference work recognized as standard in the pertinent art.

In the Advisory Action of May 14, 210, the Office asserts that “Given that the Examiner is incorrect, applicant might also provide a publication pointing out facts which clearly contradict the examiner’s Official Notice”. As explained above, however, Official Notice should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.

It is clear that the Office bears the initial burden of demonstration and it would be improper for the Office to attempt to shift the burden to the applicant who would then be forced to prove a negative assertion. In other words, if the Official Notice is proper, responding to a challenge with supporting documentation ought to be easy, much easier than proving a negative assertion. If responding to the challenge with supporting documentation is not easy, the Official Notice is probably not proper.

As to M.P.E.P. § 2144.03(C), under 37 C.F.R. § 1.111(b), an applicant is only required under the rules to reduce to writing a reply to “specifically point out the supposed errors in the examiner’s action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art” Further, the Court of Customs and Patent Appeals has stated that “[i]n the absence of *anything in the record* to contradict the examiner’s holding, and in the absence of *any demand by appellant for the examiner to produce authority* for his statement, we will not consider this contention.” *In re Chevenard*, 139 F.2d 711, 713, 60 USPQ 239, 241 (CCPA 1943) (emphasis added).

In the Advisory Action of May 14, 210, the Office asserts that merely allowing applicant to assert that he is not convinced would make a mockery of the provisions of M.P.E.P. § 2144.03(C). However, as noted in the Advisory Action at the continuation of 11, “Applicant has argued that the examiner’s Official Notice is based on his personal knowledge” and this does state why the noticed fact is not considered to be common knowledge or well-known in the art, even if the Office does not agree with the merits of the contention.

Thus, it is believed and respectfully submitted that the C.F.R. and the case law provide that to traverse Official Notice, an applicant is only required to distinctly point out the errors in the Official Notice and demanding that the examiner produce authority. In the

present case, the error in the Official Notice has been specified and it has been specifically requested that the Examiner provide an affidavit and/or published information, thereby meeting this requirement.

In the Advisory Action of May 14, 210, the Office asserts that “As to applicant’s interpretation of his response being adequate in terms of 2144.03 C, applicant provides no evidence or persuasive argument to support his position as to why the examiner’s Official Notice is not correct”. As explained above, the response have specifically pointed out what Applicant believes to be erroneous regarding the Examiner’s Official Notice regardless of whether the Office finds the arguments to be persuasive.

It is respectfully submitted that the traversal of the Official Notice was sufficient since it has been stated on the record that the rejections supported by Official Notice are based on assertions that draw on facts which appear to be based on the personal knowledge of the Examiner. In other words, it has been specifically asserted that the facts noticed are not part of the common knowledge because the facts appeared to be drawn from the Examiner’s personal knowledge.

It is therefore respectfully submitted that any Official Notice previously taken has been adequately and timely traversed, so that contrary to the assertions in paragraphs (10) and (16) of the Office Action the noticed facts do not constitute admitted prior art.

Additionally, it is again requested that the Examiner provide a supporting affidavit or publication to support each factual assertion for which the Examiner has provided Official Notice.

Claim 14, as presented, is to an evaluation device configured to analyze output of at least a subset of the signal processors, the evaluation device and the at least a subset of the signal processors each forming a direct link to one of a central hub, a switch and a port, of a network having a star-shaped topology.

The Office Action has asserted the rationale of applying a “known” technique to a “known” device ready for improvement to yield predictable results. To rely on this rationale, the Office must articulate the following: (1) a finding that the prior art contained a “base” device (method, or product) upon which the claimed invention can be seen as an “improvement”; (2) a finding that the prior art contained a known technique that is applicable to the base device (method, or product); (3) a finding that one of ordinary skill in the art

would have recognized that applying the known technique would have yielded predictable results and resulted in an improved system; and (4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness. M.P.E.P. § 2143. As explained below, the present rejections do not articulate the foregoing as required by the Office.

To date, the Office has not properly articulated the findings necessary to support the asserted obviousness rejections. As to item (1), the Office maintains that the system of the “Gilge” reference already contains a star network, in which the evaluation device is the central point, based on the Dictionary of Computers, Information & Telecommunications (the “Rosenberg” reference). A copy of the relevant pages is therefore respectfully requested, since the Office has a duty to provide it under M.P.E.P. § 707.05(a).

Furthermore, the reference should include a clear indication of its date of publication to establish that the reference constitutes prior art against the present application. Otherwise, it is respectfully submitted that the Office has not met its burden with respect to establishing that the definition of a star network was known at the time of the claimed subject matter. In addition, for the reasons explained below, the “Gilge” reference does not constitute a star network according to the definition assertedly provided in the “Rosenberg” reference.

To constitute a star network according to the “Rosenberg” reference, there must a central or controlling node. However, there is nothing to indicate that the evaluation device of the “Gilge” reference is either a central node or a controlling node. In particular, the Office Actions to date point to various functions of the evaluation device that relate to the reception, processing and transmission of data. However, these functions do not involve any apparent control of data traffic. Instead, it appears that the evaluation device passively responds to input from those components to which it is connected.

Further in this regard, the nature of the controlling is unclear from the definition provided in the “Rosenberg” reference, which does not provide any indication of what it means to be a controlling node. The evaluation device therefore does not exert the control necessary to constitute a “controlling node,” so that the “Gilge” system is not a star network, as provided for in the context of the presently claimed subject matter.

As to item (2) (as to whether the Ethernet techniques of the “Martin” reference are applicable to the “Gilge” system), the Office apparently and conveniently includes (without reason) various networking features into the “Gilge” system, such as evaluating data,

balancing network traffic, recording network data, performing network error checking and correction, and adapting to increased workload from additional device. Although these features are absent from the “Gilge” system, the Office conclusorily asserts that it is conventional with networks (like the “Gilge” system) to include these features. The Office also assumes that the evaluation device necessarily implements these features. As explained above, the evaluation device is not a controlling node. The mere fact that the evaluation device communicates with an external network is insufficient to conclude that the system as a whole is itself a network formed around the evaluation device, as provided for in the context of the claimed subject matter.

As to item (3), it is respectfully submitted that one of ordinary skill in the art would not have recognized a need for the networking features described above. The Office Action conclusorily asserts that the benefits of applying Ethernet techniques to the “Gilge” system would be recognized as predictable, but the asserted reasons are wholly based on hindsight. The Office has not asserted that the asserted disadvantages of the “Gilge” system (e.g., costs of paying staff to program, construct, and support appropriate unique network systems, costs to test software and hardware for reliability and costs to balance and rebalance workload) would be recognized at the time of the applied references. Instead, the Office appears to suggest that the authors of the “Gilge” reference necessarily had the foresight to create a system that would be amenable to modification in view of later realized needs.

Additionally, the Office has not explained why it would be obvious to apply the Ethernet techniques of the “Martin” reference to arrive at the specific configuration of the present application, as presented in the claims (e.g., a configuration in which the evaluation device would form a direct link to the hub/switch). The “Martin” reference does not disclose how to modify an existing system to implement a star network. For instance, the “Martin” reference does not address the situation of substituting a central switch for an existing component, and it also does not indicate how to connect the existing component relative to the central switch after substitution is performed. Thus, the combination of the applied references would not enable one of ordinary skill in the art to arrive at the presently claimed subject matter.

Based on these reasons, it is respectfully submitted that the “Martin” reference does not cure the deficiencies of the primary “Gilge” reference, so that one skilled in the art would not be motivated to combine these references.

For at least the above reasons, claim 14, as presented, is allowable, as are its dependent claims 15 to 28, 31 and 32.

Claims 34 and 35 each provide for features substantially similar to those of claim 14 and are therefore allowable at least the same reasons. In addition, claims 34 and 35 provide for additional features not disclosed or suggested by the cited references. For example, claims 34 and 35 provide for features relating to the operation of the hub/switch/port. In addition to engaging in full duplex communication with each of the signal processors, the hub/switch/port communicates signal processor output to the evaluation device, communicates evaluation device to a second device coupled to an output connection, and communicates an input from the second device, received via the output connection, to the evaluation device.

Thus, the evaluation device as presented in claims 34 and 35 is actively responsible for various types of intra-device as well as inter-device communication.

Accordingly, claims 34 and 35, as presented, are allowable for these further reasons.

**B. OBVIOUSNESS REJECTIONS OF
CLAIMS 29, 30 & 33 UNDER 35 U.S.C § 103(A)**

Claims 29, 30 and 33 were rejected under 35 U.S.C. § 103(a) as obvious over the “Gilge” reference in view of the “Martin” reference and U.S. Patent Application Pub. No. 2004/0264493 (the “Han” reference).

Claims 29, 30 and 33 depend from claim 14 and they are therefore allowable for the same reasons, since the “Han” reference does not cure – and has not been asserted to cure – the critical deficiencies of the “Gilge” and “Martin” references as to claim 14.

Additionally, claim 33 and, respectively, claims 29 and 30, include the features in which “*the plurality of signal processors are configured to communicate with one another in full duplex mode*” and in which “*at least a subset of the plurality of signal processors is assigned a specific bandwidth.*” Although the Office conclusorily asserts that full duplex communication and assigning of bandwidth are somehow provided by the “Han” reference, no reasons are provided as to why it would be obvious to implement these features with the “Gilge” system.

As further regards all of the obviousness rejections, the Examiner never provided an affidavit and/or published information concerning these assertions, even though requested to do so and even though the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

It is respectfully submitted that instead of providing a *prima facie* case of obviousness, the Office is simply stating, without any supporting evidence, that it would have been **obvious to try** the combination asserted by the Final Office Action. In this regard, the cases of In re Fine, supra, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office's generalized assertions that it would have been obvious to modify or combine the references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Office Actions to date reflect a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence)

that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

It is believed and respectfully submitted that the Office Actions to date offer no evidence, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding. Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide **proper evidence of a motivation** for modifying or combining the references to provide the claimed subject matter.

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not the case here — there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Here again, there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of the

reference, whether taken alone or combined, makes plain that it simply does not describe the features discussed above of the rejected claims.

As still further regards all of the obviousness rejections of the claims, it is respectfully submitted that not even a *prima facie* case has been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (See *In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and this Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper *prima facie* unpatentability case — which has not been met in the present case. (See *In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

It is therefore respectfully requested that all rejections of the pending claims be withdrawn.

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CONCLUSION

In view of the above, it is respectfully requested that the rejections of claims 14 to 35 be reversed, and that these claims be allowed as presented.

Respectfully submitted,

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CLAIMS APPENDIX

1-13. (Cancelled).

14. A data gathering/data processing device for video/audio signals, comprising:
 - a plurality of signal processors; and
 - an evaluation device configured to analyze output of at least a subset of the signal processors, the evaluation device and the at least a subset of the signal processors each forming a direct link to one of a central hub, a switch and a port, of a network having a star-shaped topology.
15. The device according to claim 14, wherein the at least a subset of the signal processors are communicatively interlinked via the one of a central hub, a switch and a port of the network.
16. The device according to claim 14, wherein the network is integrated into the device.
17. The device according to claim 14, wherein the network forms a backbone for the device.
18. The device according to claim 14, wherein the network is designed according to the Ethernet standard.
19. The device according to claim 14, wherein data traffic on the network proceeds according to the Ethernet standard.
20. The device according to claim 14, further comprising:
 - a housing, the one of a hub, a switch and a port of the network being integrated into the housing which accommodates the signal processors.
21. The device according to claim 14, further comprising:
 - a housing, the one of a hub, a switch and a port of the network being situated externally with respect to the housing which accommodates the signal processors.

22. The device according to claim 14, further comprising:

at least one connection for inputting video/audio signals to the at least a subset of the signal processors.

23. The device according to claim 14, further comprising:

at least one connection, at least two of the signal processors being assigned to the at least one connection.

24. The device according to claim 14, further comprising:

at least one connection for a transmission of data to a digital network.

25. The device according to claim 24, wherein the connection is coupled to the network of the device.

26. The device according to claim 24, wherein the connection is coupled to at least one of a hub, a switch and a port of the network of the device.

27. The device according to claim 14, further comprising:

a housing, the one of a hub, a switch and a port of the network being integrated into the housing which accommodates the signal processors;

at least one connection for inputting video/audio signals to the at least a subset of the signal processors; and

at least one connection for a transmission of data to a digital network;

wherein:

the at least a subset of the signal processors are communicatively interlinked via the one of a central hub, a switch and a port of the network,

the network is integrated into the device,

the network forms a backbone for the device, and

the network is designed according to the Ethernet standard, and data traffic on the network proceeds according to the Ethernet standard.

28. The device according to claim 27, wherein the at least one connection for a transmission of data to a digital network is coupled to the network of the device, and coupled to the one of a hub, a switch and a port of the network of the device.
29. The device according to claim 14, wherein the plurality of signal processors are configured to communicate with one another in full duplex mode.
30. The device according to claim 14, wherein at least a subset of the plurality of signal processors is assigned a specific bandwidth.
31. The device according to claim 14, wherein at least two of the plurality of signal processors are connected to the same signal source, a first one of the at least two of the plurality of signal processors is configured to perform a compression of a signal received from the signal source, and a second one of the at least two of the plurality of signal processors is configured to perform an analysis of the signal received from the signal source.
32. The device according to claim 14, wherein internal communication between the plurality of signal processors occurs over a digital network coupled to the network having a star-shaped topology.
33. The device according to claim 14, wherein:
 - the plurality of signal processors are configured to communicate with one another in full duplex mode,
 - at least a subset of the plurality of signal processors is assigned a specific bandwidth,
 - at least two of the plurality of signal processors are connected to the same signal source,
 - a first one of the at least two of the plurality of signal processors is configured to perform a compression of a signal received from the signal source, and a second one of the at least two of the plurality of signal processors is configured to perform an analysis of the signal received from the signal source, and
 - internal communication between the plurality of signal processors occurs over a digital network coupled to the network having a star-shaped topology.

34. A device, comprising:

a housing having a plurality of input connections and an output connection, each of the input connections adapted to receive an audio/visual signal;

a plurality of signal processors coupled to the input connections, at least two of the plurality of signal processors being coupled to a shared input connection, a first one of the at least two of the plurality of signal processors configured to perform a compression of a signal from the shared input connection, and a second one of the at least two of the plurality of signal processors configured to perform an analysis of the signal from the shared input connection;

an evaluation device to analyze output of at least a subset of the signal processors; and

one of a central hub, a switch and a port, directly connected to each of the signal processors and to the evaluation device to form a network having a star-shaped topology, each of the connections to the one of a central hub, a switch and a port being assigned a specific communication bandwidth;

wherein the one of a central hub, a switch and a port is configured to engage in full duplex communication with each of the signal processors, communicate the output of the at least a subset of the signal processors to the evaluation device, communicate an output of the evaluation device to a second device coupled to the output connection, and communicate an input from the second device, received via the output connection, to the evaluation device.

35. A device, comprising:

a housing having a plurality of input connections and a plurality of output connections, each of the input connections adapted to receive an audio/visual signal;

a plurality of signal processors coupled to the input connections, at least two of the plurality of signal processors being coupled to a shared input connection, a first one of the at least two of the plurality of signal processors configured to perform a compression of a signal from the shared input connection, and a second one of the at least two of the plurality of signal processors configured to perform an analysis of the signal from the shared input connection; and

an evaluation device configured to analyze output of at least a subset of the signal processors;

wherein, each of the plurality of signal processors and the evaluation device is directly coupled to one of a central hub, a switch and a port, via a respective one of the plurality of output connections, to form a network having a star-shaped topology, each of the connections to the one of a central hub, a switch and a port being assigned a specific communication bandwidth, and

wherein the one of a central hub, a switch and a port is configured to engage in full duplex communication with each of the signal processors, communicate the output of the at least a subset of the signal processors to the evaluation device, communicate an output of the evaluation device to a second device coupled to an output connection of the one of a central hub, a switch and a port, and communicate an input from the second device, received via the output connection of the one of a central hub, a switch and a port, to the evaluation device.

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EVIDENCE APPENDIX

Appellants have not submitted any evidence pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132, and do not rely upon evidence entered by the Examiner.

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RELATED PROCEEDINGS INDEX

There are no interferences or other appeals related to the present application.